

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed January 15, 2004. In order to advance prosecution of this case, Applicant amends Claims 5 and 13. Applicant respectfully requests reconsideration and favorable action in this case.

Section 112 Rejections

The Examiner rejects Claim 5 under 35 U.S.C. § 112, first paragraph, "because the specification . . . does not reasonably provide enablement for inserting fasteners into the skin panel when the panel is cured." The Examiner also rejects Claims 5 and 13 under 35 U.S.C. § 112, second paragraph, "as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention." Although Applicant respectfully traverses these rejections, Applicant has amended Claims 5 and 13 as suggested by the Examiner to advance prosecution of this case. Reconsideration and favorable action are respectfully requested.

Section 103 Rejections

The Examiner rejects Claims 1-2, 4-5 and 8 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,675,061 issued to Mead ("Mead") in view of the collective teachings of U.S. Patent No. 6,106,646 issued to Fairbanks ("Fairbanks") and U.S. Patent No. 5,827,383 issued to Campbell ("Campbell"). The Examiner also rejects Claims 7 and 10-13 as being unpatentable over *Mead* and the collective teachings of *Fairbanks* and *Campbell*, as applied to Claim 1 above, and further in view of U.S. Patent No. 5,238,725 to Effing ("Effing"). The Examiner also rejects Claims 15-18 as being unpatentable over *Mead* and the collective teachings of U.S. Patent No. 3,669,821 to Sharp ("Sharp") and U.S. Patent No. 4,865,788 to Davis ("Davis") and the collective teachings of *Fairbanks* and *Campbell*. Dependent Claims 6, 9, 14, 19 and 24 are also rejected by the Examiner over various combinations of the above references as well as other references, as indicated in the Office Action. Applicant respectfully traverses these rejections for the reasons discussed below.

As the Examiner is well aware, "[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the

art, to modify the reference or to combine reference teachings. Second, there must be reasonable expectation of success. Finally, the prior reference (or references when combined) must teach or suggest all the claim limitations." (MPEP § 2143). First, Applicant respectfully submits that there is no suggestion or motivation in any of the references or in the knowledge generally available to one of ordinary skill in the art to make the proposed combinations. Second, Applicant respectfully submits that the prior art references when combined do not teach or suggest all the claim limitations.

No Motivation to Combine

"Teachings of references can be combined *only* if there is some suggestion or incentive to do so." (*ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577 (Fed. Cir. 1984)). "[A]nalysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness." (*In re Sang-Su Lee*, 277 F.3d 1338, 1343 (Fed. Cir. 2002)). "Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability – the essence of hindsight." (*In re Dembicza*k, 175 F.3d 994, 999 (Fed. Cir. 1999)). "[C]ase law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is a rigorous application of the requirement for showing of the teaching or motivation to combine prior art references." *Id.* "It is improper . . . simply to '[use] that which the inventor taught against its teacher'." (*Sang-Su Lee*, 277 F.3d at 1344 (quoting *W.L. Gore v. Garlock Inc.*, 721 F.2d 1540, 1553 (Fed. Cir. 1983))). "The factual inquiry whether to combine references must be thorough and searching." (*Sang-Su Lee*, 277 F.3d at 1343). "[An] examiners conclusory statements . . . do not adequately address the issue of motivation to combine." *Id.* Conclusory statements cannot be relied upon "when dealing with particular combinations of prior art and specific claims, but must set forth the rationale on which it relies." *Id.*

As indicated above, each of the independent claims are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Mead* in view of the collective teachings of *Fairbanks* and *Campbell*. Applicant respectfully submits that the Examiner has not provided the required evidence of a suggestion, teaching, or motivation to combine *Mead* with the collective

teachings of *Fairbanks* and *Campbell*. First, nowhere in *Mead* is the use of, or desirability of, fasteners mentioned. In fact, using fasteners to couple the base layer and overlying layer of *Mead* may frustrate the teachings of *Mead* depending on the material of the fasteners. For example, if fasteners hypothetically used in *Mead* were made of the same or similar material of the memory metal cores, then the fasteners would shrink also, thereby causing potential problems for the structure. Thus, no one having skill in the art would be motivated to combine *Mead* with either *Fairbanks* or *Campbell* for at least this reason.

Second, the Examiner states, "it would have been obvious to the skilled artisan at the time the invention was made to partially cure the skin panel and stiffening panel of *Mead* to create contact regions between the same and couple the panels with a plurality of fasteners after partial-curing but before final curing because such is known in the art, as taught by the collective teachings of *Fairbanks* and *Campbell*, wherein the fasteners can be easily inserted due to the partially-cured state of the layers and delamination of the composite can be prevented due to the presence of the fasteners." (Office Action at 5).

However, Applicant submits that neither *Fairbanks* nor *Campbell* teach or suggest partial curing. *Fairbanks* does teach debulking that "includes first exposing the stacked layers to a vacuum to remove entrapped gases . . . and then pressing and heating the stack into a preliminary preform." (*Fairbanks*, col. 3, lines 4-7). However, this heating is merely at "a temperature in the range of about 100-200°F, typically 125°F . . . to avoid relaxation of the shape after pressure removal and during subsequent processing" (*Id.*, col. 3, lines 50-53). This is not sufficient temperature to facilitate "partial-curing of the skin panel and stiffening panel to create a plurality of contact regions," as recited in the independent claims of the instant application. At best, this teaches "heating the stiffening panel to a state sufficient enough to enable handling of the stiffening panel while maintaining its configuration," as recited in independent Claim 15.

Campbell also does not teach or suggest partial curing just because *Campbell* is using a prepreg. Contrary to what the Examiner believes, prepreg is not necessarily partial-curing. A prepreg is used for handling purposes as indicated by U.S. Pat. No. 5,403,537 to Seal et al., which states "a prepreg is a material which consists of a fibrous reinforcement impregnated with a resin that is partially-cured to a state in which it can be handled." (*Seal*, col. 1, lines 39-42). *Campbell* even states that the prepreg (if used) includes uncured resin by stating

"Stiffener member 12 and skin member 10 may be a fiber matrix structure formed of . . . plies of fiber in an uncured resin matrix combined as a prepreg . . ." (*Campbell*, col. 4, lines 37-40). (Emphasis added).

Therefore, Applicant respectfully submits that the Examiner has not provided the required evidence of a motivation to combine *Mead* with the collective teachings of *Fairbanks* and *Campbell*. Accordingly, independent Claims 1, 10 and 15 are allowable, as well as their respective dependent claims. Reconsideration and favorable action are respectfully requested.

Proposed Combination of References Do Not Teach All the Claim Limitations

As correctly indicated by the Examiner at page 4 of the Office Action, *Mead* does not teach or suggest partial-curing. In addition, as discussed above, neither *Fairbanks* nor *Campbell* teaches or suggests partial-curing. Therefore, the proposed combination of references does not teach all the claim limitations of independent Claims 1, 10 and 15. Accordingly, independent Claims 1, 10 and 15 are allowable, as well as their respective dependent claims. Reconsideration and favorable action are respectfully requested.

CONCLUSIONS

Applicant has made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other apparent reasons, Applicant respectfully requests full allowance of all pending Claims. If the Examiner feels that a telephone conference or an interview would advance prosecution of this Application in any manner, the undersigned Attorney for Applicant stands ready to conduct such a conference at the convenience of the Examiner.

Applicant believes no fee is due at this time, however; the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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